



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Debra Bernstein et al.                      Art Unit : 2183  
Serial No. : 10/643,438                                      Examiner : Unknown  
Filed : August 19, 2003  
Title : MICROENGINE FOR PARALLEL PROCESSOR ARCHITECTURE

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449. Applicant has not provided copies of the US patents in accordance with the waiver posted on the USPTO website.

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office action on the merits. Please apply any charges or credits to deposit account 06-1050, 10559-076002.

Respectfully submitted,

Date: 4/23/04

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I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

23 April 2004  
Date of Deposit  
Michelle M. Buckley  
Signature  
MICHELLE M. BUCKLEY  
Typed or Printed Name of Person Signing Certificate

Substitute Form PTO-1449  
(Modified)U.S. Department of Commerce  
Patent and Trademark OfficeAttorney's Docket No.  
10559-076002Application No.  
10/643,438**Information Disclosure Statement  
by Applicant**

(Use several sheets if necessary)

(37 CFR §1.98(b))

Applicant  
Debra Bernstein et al.Filing Date  
08/19/03Group Art Unit  
Unknown**U.S. Patent Documents**

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	6,694,380	02/17/2004	Wolrich et al.			
	AB	6,681,300	01/20/2004	Wolrich et al.			
	AC	6,668,317	12/23/2003	Bernstein et al.			
	AD	6,667,920	06/09/2003	Wolrich et al.			
	AE	6,661,794	12/09/2003	Wolrich et al.			
	AF	6,631,462	10/07/2003	Wolrich et al.			
	AG	6,631,430	10/07/2003	Wolrich et al.			
	AH	6,625,654	09/23/2003	Wolrich et al.			
	AI	6,606,704	08/12/2003	Adiletta et al.			
	AJ	6,587,906	07/01/2003	Wolrich et al.			
	AK	6,584,522	06/24/2003	Wolrich et al.			
	AL	6,577,542	06/10/2003	Wolrich et al.			
	AM	6,560,667	05/06/2003	Wolrich et al.			
	AN	6,552,826	04/22/2003	Adler et al.			
	AO	6,532,509	03/11/2003	Wolrich et al.			
	AP	6,463,072	10/08/2002	Wolrich et al.			
	AQ	6,434,145	08/13/2002	Opsasnick et al.			
	AR	6,430,626	08/06/2002	Witkowski et al.			
	AS	6,427,196	07/30/2002	Adiletta et al.			
	AT	6,426,940	07/30/2002	Seo et al.			
	AU	6,415,338	07/02/2002	Habot			
	AV	6,393,483	05/21/2002	Latif et al.			
	AW	6,389,449	05/14/2002	Nermirovsky et al.			
	AX	6,373,848	04/16/2002	Allison et al.			
	AY	6,360,262	03/19/2002	Guenthner et al.			
	AZ	6,356,692	03/12/2002	Kasper et al.			
	AAA	6,347,344	02/12/2002	Baker et al.			

Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified) <b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary) (37 CFR § 1.98(b))	U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. <b>10559-076002</b>	Application No. <b>10/643,438</b>
	Applicant <b>Debra Bernstein et al.</b>			
	Filing Date <b>08/19/03</b>		Group Art Unit <b>Unknown</b>	

**U.S. Patent Documents**

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ABB	6,345,334	02/05/2002	Nakagawa et al.			
	ACC	6,324,624	11/27/01	Wolrich et al.			
	ADD	6,307,789	10/23/2001	Wolrich et al.			
	AEE	6,298,370	10/02/2001	Tang et al.			
	AFF	6,289,011	09/11/2001	Seo et al.			
	AGG	6,279,113	08/21/2001	Vaidya			
	AHH	6,275,505	08/14/2001	O'Loughlin et al.			
	AII	6,272,616	08/07/2001	Fernando et al.			
	AJJ	6,256,713	07/03/2001	Audityan et al.			
	AKK	6,247,025	06/12/2001	Bacon			
	ALL	6,223,279	04/24/2001	Nishimura et al.			
	AMM	6,223,238	04/24/2001	Meyer et al.			
	ANN	6,223,207	04/24/2001	Lucovsky et al.			
	AOO	6,216,220	04/10/2001	Hwang			
	APP	6,212,611	04/03/2001	Nizar et al.			
	AQQ	6,212,542	04/03/2001	Kahle et al.			
	ARR	6,201,807	03/18/2001	Prasanna			
	ASS	6,199,133	03/06/2001	Schnell			
	ATT	6,195,676	02/27/2001	Spix et al.			
	AUU	6,182,177	01/30/2001	Harriman			
	AVV	6,160,562	12/12/2000	Chin et al.			
	AWW	6,157,955	12/05/2000	Narad et al.			
	AXX	6,145,054	11/07/2000	Mehrotra et al.			
	AYY	6,144,669	11/07/2000	Williams et al.			
	AZZ	6,141,765	10/31/2000	Sherman			
	AAAA	6,141,689	10/31/2000	Yasrebi			
	ABBB	6,134,665	10/17/2000	Klein et al.			

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U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ACCC	6,112,016	08/29/2000	MacWilliams et al.			
	ADDD	6,092,158	07/18/2000	Harriman et al.			
	AEEE	6,092,127	07/18/2000	Tausheck			
	AFFF	6,085,294	07/04/2000	Van Doren et al.			
	AGGG	6,085,215	07/04/2000	Ramakrishnan et al.			
	AHHH	6,079,008	06/20/2000	Clery, III			
	AIII	6,073,215	06/06/2000	Snyder			
	AJJJ	6,072,781	06/06/2000	Feeney et al.			
	AKKK	6,070,231	05/30/2000	Ottinger			
	ALLL	6,067,585	05/23/2000	Hoang			
	AMMM	6,058,168	05/02/2000	Braband			
	ANNN	6,023,742	02/08/2000	Ebeling et al.			
	AOOO	6,014,729	01/11/2000	Lannan et al.			
	APPP	6,012,151	01/04/2000	Mano			
	AQQQ	5,983,274	11/09/1999	Hyder et al.			
	ARRR	5,978,838	11/02/1999	Mohammed et al.			
	ASSS	5,978,838	11/02/1999	Heinrich et al.			
	ATTT	5,970,013	10/19/1999	Fischer et al.			
	AUUU	5,961,628	10/05/1999	Nguyen et al.			
	AVVV	5,958,031	09/28/1999	Kime			
	AWWW	5,948,081	09/07/1999	Foster			
	AXXX	5,946,487	08/31/1999	Dangelo			
	AYYY	5,940,866	08/17/1997	Chisholm et al.			
	AZZZ	5,940,612	08/17/1999	Brady et al.			
	AAAAA	5,937,187	08/21/1995	Kosche et al.			
	ABBBB	5,928,736	08/17/1999	Muller et al.			
	ACCCC	5,915,123	06/22/1999	Mirsky et al.			

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U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ADDDD	5,905,889	05/18/1999	Wilhelm, Jr.			
	AEEEE	5,905,876	08/18/1999	Pawlowski et al.			
	AFFFF	5,892,979	04/06/1999	Shiraki et al.			
	AGGGG	5,890,208	03/30/1999	Kwon			
	AHHHH	5,887,134	03/23/1999	Ebrahim			
	AIIII	5,886,992	03/23/1999	Raatikaia et al.			
	AJJJJ	5,860,158	01/12/1999	Pai et al.			
	AKKKK	5,854,922	12/29/1998	Gravenstein et al.			
	ALLLL	5,835,755	11/10/1998	Stellwagen, Jr.			
	AMMMM	5,832,215	11/03/1998	Kato et al.			
	ANNNN	5,828,863	10/27/1998	Barrett et al.			
	AOOOO	5,828,746	10/27/1998	Ardon			
	APPPP	5,812,868	11/22/1998	Moyer et al.			
	AQQQQ	5,809,530	09/15/1998	Samra et al.			
	ARRRR	5,809,235	09/15/1998	Sharma et al.			
	ASSSS	5,797,043	08/18/1998	Lewis et al.			
	ATTTT	5,796,413	08/18/1998	Shipp et al.			
	AUUUU	5,784,712	07/21/1998	Byers et al.			
	AVVVV	5,784,649	07/21/1998	Begur et al.			
	AWWWW	5,781,774	07/14/1998	Krick			
	AXXXX	5,761,522	06/02/1998	Hisanga et al.			
	AYYYY	5,761,507	06/02/1998	Govett			
	AZZZZ	5,751,987	04/12/1998	Mahant-Shetti et al.			
	AAAAA	5,745,913	04/28/1998	Pattin et al.			
	ABBBB	5,742,822	04/21/1998	Motomura			
	ACCCCC	5,742,782	04/21/1998	Ito et al.			
	ADDDDE	5,742,587	04/21/1998	Zornig et al.			

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### U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AEEEEEE	5,721,870	02/24/1998	Matsumoto			
	AFFFFF	5,717,898	02/10/1998	Kagan et al.			
	AGGGGG	5,699,537	12/16/1997	Sharangpani et al.			
	AHHHHH	5,689,566	11/18/1997	Nguyen			
	AIIIII	5,680,641	10/21/1997	Sidman			
	AJJJJJ	5,659,687	08/19/1997	Kim et al.			
	AKKKKK	5,649,157	07/15/1997	Williams			
	ALLLLL	5,644,623	07/01/1997	Gutledge			
	AMMMMM	5,630,641	05/13/1997	Perotto et al.			
	ANNNNN	5,627,829	05/06/1997	Gleeson et al.			
	AOOOOO	5,623,489	04/22/1997	Cotton et al.			
	APPPPP	5,613,136	03/18/1997	Casavant et al.			
	AQQQQQ	5,613,071	03/18/1997	Rankin et al.			
	ARRRRR	5,592,622	01/07/1997	Isfeld et al.			
	ASSSSS	5,574,922	11/12/1996	James			
	ATTTTT	5,568,617	10/22/1996	Kametani			
	AUUUUU	5,557,766	09/17/1996	Takiguchi et al.			
	AVVVVV	5,550,816	08/27/1996	Hardwick et al.			
	AWWWWW	5,544,236	08/06/1996	Andruska et al.			
	AXXXXX	5,542,088	07/30/1996	Jennings, Jr. et al.			
	AYYYYY	5,542,070	07/30/1996	LeBlanc et al.			
	AZZZZZ	5,517,648	05/14/1996	Bertone et al.			
	AAAAAA	5,467,452	11/14/1995	Blum et al.			
	ABBBBB	5,463,625	10/31/1995	Yasrebi			
	ACCCCC	5,459,842	10/17/1995	Begun et al.			
	ADDDDD	5,452,437	09/19/1995	Richey et al.			
	AEEEEEE	5,450,351	09/12/1995	Heddes			

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### U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AFFFFFF	5,448,702	09/05/1995	Garcia, Jr. et al.			
	AGGGGG	5,432,918	07/11/1995	Stamm			
	AHHHHH	5,404,484	04/04/1995	Bennett			
	AIIIII	5,404,482	04/04/1995	Stamm et al.			
	AJJJJJ	5,392,412	02/21/1995	McKenna			
	AKKKKK	5,392,411	02/21/1995	Ozaki			
	ALLLLL	5,392,391	02/21/1995	Caulk, Jr. et al.			
	MMMMM	5,390,329	02/14/1995	Gaertner et al.			
	ANNNNN	5,367,678	11/22/1994	Lee et al.			
	AOOOOO	5,347,648	09/13/1994	Stamm et al.			
	APPPPP	5,263,169	11/16/1993	Genusov et al.			
	AQQQQQ	5,255,239	10/19/1993	Taborn et al.			
	ARRRRR	5,173,897	12/22/1992	Schrodi et al.			
	ASSSSS	5,173,897	12/22/1992	Pfeiffer et al.			
	ATTTTT	5,168,555	12/01/1992	Byers et al.			
	AUUUUU	5,155,854	10/13/1992	Flynn et al.			
	AVVVVV	5,155,831	10/13/1992	Emma et al.			
	WWWWW	5,142,683	08/25/1992	Burkhardt, Jr. et al.			
	AXXXXX	5,140,685	08/18/1992	Sipple et al.			
	AYYYYY	4,866,664	09/12/1989	Burkhardt, Jr. et al.			
	AZZZZZ	4,745,544	05/17/1988	Renner et al.			
	AAAAAA	4,523,272	06/11/1985	Fukunaga et al.			
	BBBBBB	4,514,807	04/30/1985	Nogi			
	ACCCCC	4,400,770	08/23/1983	Chan et al.			
	DDDDDD	4,130,890	12/19/1978	Adam			
	EEEEEE	3,940,745	02/24/1976	Sajeva			
	AFFFFFF	3,792,441	02/12/1974	Wymore et al.			

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U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	GGGGGG	3,478,322	11/11/1969	Evans			
	HHHHHH	3,373,408	03/12/1968	Ling			
	IIIIII	10/726,757	12/03/2003	Wolrich et al.			
	AJJJJJ	10/684,078	10/10/2003	Wolrich et al.			
	KKKKKK	10/664,202	09/16/2003	Wolrich et al.			
	LLLLLL	10/644,337	08/20/2003	Wolrich et al.			
	MMMMMM	10/615,500	07/08/2003	Adiletta			
	NNNNNN	10/615,280	07/08/2003	Wolrich et al.			
	OOOOOO	10/440,079	05/15/2003	Wolrich et al.			
	APPPPP	10/208,264	07/30/2002	Adiletta et al.			
	QQQQQQ	09/476,303	12/30/1999	Wolrich et al.			
	RRRRRR	09/475,614	12/30/1999	Wolrich et al.			
	SSSSSS	09/473,571	12/28/1999	Wolrich et al.			
	TTTTTT	09/387,109	08/31/1999	Adiletta et al.			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	✓ UUUUUU	WO 01/50679	07/12/2001	WIPO				
	✓ VVVVVV	WO 01/50247	07/12/2001	WIPO				
	✓ WWWW	WO 01/48619	07/05/2001	WIPO				
	✓ XXXXXX	WO 01/48606	07/05/2001	WIPO				
	✓ YYYYYY	WO 01/48596	07/05/2001	WIPO				
	✓ ZZZZZZ	WO 01/16782	03/08/2001	WIPO				
	✓ AAAAAA	WO 01/16770	03/08/2001	WIPO				
	✓ BBBBBB	WO 01/16769	03/08/2001	WIPO				
	✓ CCCCCC	WO 01/15718	03/08/2001	WIPO				
	✓ DDDDDD	WO 97/38372	10/16/1997	WIPO				

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Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
✓	EEEEEEEE	WO 94/15287	07/07/1994	WIPO				
✓	FFFFFFF	EP 0 809 180	11/26/1997	Europe				
✓	GGGGGG	EP 0 745 933	12/04/1996	Europe				
✓	HHHHHH	EP 0 633 678	01/11/1995	Europe				
✓	IIIIIIII	EP 0 464 715	01/08/1992	Europe				
✓	AJJJJJJJ	EP 0 379 709	08/01/1990	Europe				
✓	KKKKKK	59111533	06/27/1984	Japan				

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
✓	LLLLLLLL	Byrd et al., "Multithread Processor Architectures," <i>IEEE Spectrum</i> , Vol. 32, No. 8, New York, 1 August 1995, pp. 38-46.
✓	MMMMMMMM	Doyle et al., <i>Microsoft Press Computer Dictionary</i> , 2 <sup>nd</sup> ed., Microsoft Press, Redmond, Washington, USA, 1994, p. 326.
✓	NNNNNNNN	Fillo et al., "The M-Machine Multicomputer," <i>IEEE Proceedings of MICRO-28</i> , 1995, pp. 146-156.
✓	OOOOOOOO	Gomez et al., "Efficient Multithreaded User-Space Transport for Network Computing: Design and Test of the TRAP Protocol," <i>Journal of Parallel and Distributed Computing</i> , Academic Press, Duluth, Minnesota, USA, vol. 40, no. 1, 10 January 1997, pp. 103-117.
✓	PPPPPPPP	Haug et al., "Reconfigurable hardware as shared resource for parallel threads," <i>IEEE Symposium on FPGAs for Custom Computing Machines</i> , 1998.
✓	QQQQQQQQ	Hauser et al., "Garp: a MIPS processor with a reconfigurable coprocessor," <i>Proceedings of the 5<sup>th</sup> Annual IEEE Symposium on Field-Programmable Custom Computing Machines</i> , 1997.
✓	RRRRRRRR	Hyde, R., "Overview of Memory Management," <i>Byte</i> , vol. 13, no. 4, 1998, pp. 219-225.
✓	SSSSSSSS	Litch et al., "StrongARMing Portable Communications," <i>IEEE Micro</i> , 1998, pp. 48-55.
✓	TTTTTTTT	Schmidt et al., "The Performance of Alternative Threading Architectures for Parallel Communication Subsystems," Internet Document, <i>Online!</i> , 13 November 1998.
✓	UUUUUUUU	Thistle et al., "A Processor Architecture for Horizon," <i>IEEE</i> , 1998, pp. 35-41.
✓	VVVVVVVV	Tremblay et al., "A Three Dimensional Register File for Superscalar Processors," <i>IEEE Proceedings of the 28<sup>th</sup> Annual Hawaii International Conference on System Sciences</i> , 1995, pp. 191-201.
✓	WWWWWWW	Trimberger et al., "A time-multiplexed FPGA," <i>Proceedings of the 5<sup>th</sup> Annual IEEE Symposium on Field-Programmable Custom Computing Machines</i> , 1998.
✓	XXXXXXXX	Turner et al., "Design of a High Performance Active Router," Internet Document, <i>Online</i> , 18 March 1999.

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		Filing Date 08/19/03	Group Art Unit Unknown

Other Documents (include Author, Title, Date, and Place of Publication)		
Examine r Initial	Desig. ID	Document
✓	YYYYYYYY	Vibhatavani et al., "Simultaneous Multithreading-Based Routers," Proceedings of the 2000 International Conference of Parallel Processing, Toronto, Ontario, Canada, 21-24 August 2000, pp. 362-359.
✓	ZZZZZZZZ	Wazlowski et al., "PRSIM-II computer and architecture," IEEE Proceedings, Workshop on FPGAs for Custom Computing Machines, 1993.

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